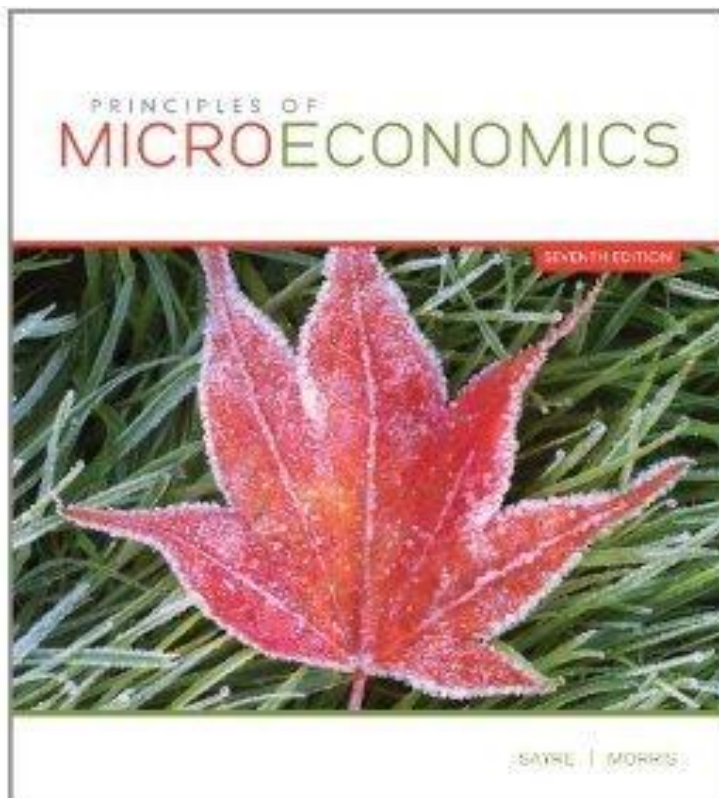


EC1110 - Microeconomics

Assignment 1 Key

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Using Sayre 7th Edition



Chapter 1 – 36A Page 27

Parallel Problems

ANSWERED PROBLEMS

36A. (LO 6) Key Problem Table 1.4 contains the production possibilities data for capital goods and consumer goods in the economy of New Harmony.

TABLE 1.4

	A	B	C	D	E
Capital goods	0	8	14	18	20
Consumer goods	30	27	21	12	0

a) Use the grid in Figure 1.7 to draw the production possibilities curve for New Harmony, and label it PPI. Label each of the five output combinations with the letters a through e.

b) Assume that the people of New Harmony have decided to produce 12 units of consumer goods. How many units of capital goods could be produced?

Answer: 18

c) Assume that the people of New Harmony have decided to produce 11 units of capital goods. Approximately how many units of consumer goods could be produced?

Answer: approx 24

d) What is the total cost of (the first) 14 capital goods produced?

Answer: $30 - 21 = 9$

e) Assuming the economy is producing combination C, what is the total cost of 6 additional consumer goods?

Answer: $14 - 8 = 6$

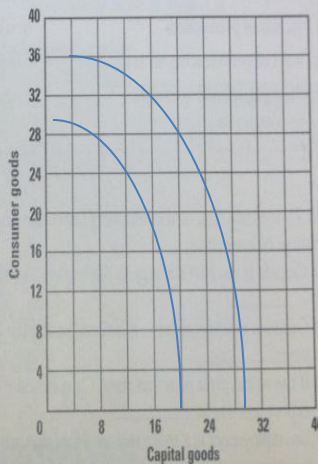
f) Assuming the economy is producing combination B, what is the approximate unit cost of an additional capital good?

Answer: $8 - 14 = 6$

$27 - 21 = 6$ a 1/1

relship

FIGURE 1.7



g) Assuming the economy is producing combination C, what is the approximate per unit cost of an additional capital good?

Answer: $14 - 18 = 4$

h) What law is illustrated in your answers to f) and g)?

i) Fill in Table 1.5 assuming that, as a result of economic growth, the output potential of capital goods has increased by 50 percent, while the output potential for consumer goods has risen by 6 units for each combination A through D.

j) Using the data from this table, draw in PP2 in Figure 1.7.

k) As a result of the economic growth, can New Harmony now produce 24 capital goods and 26 consumer goods?

Answer: _____

l) What are three possible explanations for the shift from PP1 to PP2?

Answer: Growth,
Technology,
Efficiency

TABLE 1.5

	V	W	X	Y	Z
Capital goods	0	12	21	27	30
Consumer goods and services	36	33	27	18	0

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- 36A. (LO 1, 2, 4, 5, 6) **Key Problem** Table 2.12 shows the market for wool in the economy of Odessa (the quantities are in tonnes per year).
- Plot the demand and supply curves on Figure 2.16, and label them D_1 and S_1 . Mark the equilibrium as e_1 on the graph.
 - What are the values of equilibrium price and quantity?
 equilibrium price: 500
 equilibrium quantity: 50
 - If the price of wool were \$600, would there be a surplus or shortage?
 Surplus/shortage Surplus of 30
 Indicate the amount of the surplus or shortage on the graph.
 - Suppose that the demand were to increase by 60. Draw and label the new demand curve as D_2 . What are the new values of equilibrium price and quantity?
 equilibrium price: 700
 equilibrium quantity: 70
 Mark the new equilibrium as e_2 on the graph.
 - Following the change in d), suppose that the supply were to increase by 50 percent. Draw and label the new supply curve as S_2 . What are the new values of equilibrium price and quantity?
 equilibrium price: 600
 equilibrium quantity: 90
 Mark the new equilibrium as e_3 on the graph.

TABLE 2.12

Price (\$)	100	200	300	400	500	600	700
Quantity demanded	130	110	90	70	50	30	10
Quantity supplied	10	20	30	40	50	60	70

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38A. (LO 3, 4, 6) Table 2.13 shows the market demand and supply for Fuji apples in Peterborough.

a) What is the equilibrium price and quantity traded?

price: 6 quantity: 150

b) Suppose that supply increases by 30. What would be the price and quantity traded at the new equilibrium?

price: 4 quantity: 160

c) After the increase in supply, what would be the surplus/shortage at a price of \$8?

Surplus/shortage Surplus 60

TABLE 2.13

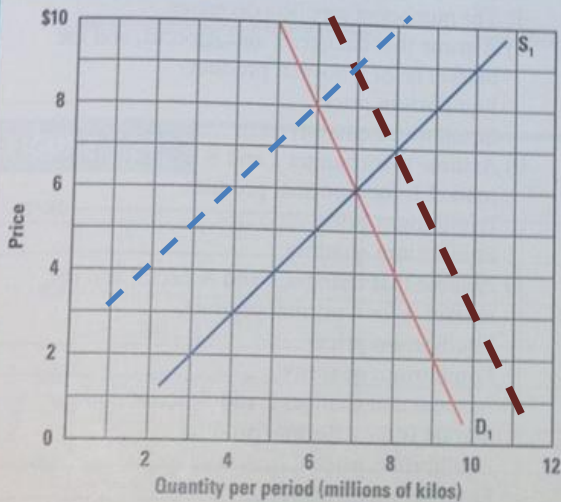
Price	Quality Demanded	Quantity Supplied
0	180	90
2	170	110
4	160	130
6	150	150
8	140	170
10	130	190

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ANSWERED PROBLEMS

36A. (LO 1, 3, 4) **Key Problem** Figure 3.18 depicts the market for rice in the country of Shiva.

FIGURE 3.18



- a) What is the present equilibrium price and quantity traded in this market? Price: 6 ; quantity traded: 7
- b) How much, in total, are rice buyers paying for this quantity? Total spending: $7 \times 6 = 42$
- c) Suppose that government introduces a price floor of \$8 per kilo. How much in total will rice buyers now be paying? Total spending: $8 \times 6 = 48$
- d) As a result of the price floor, what will be the total amount of the surplus? What will be the dollar amount of this surplus? Who will be responsible for buying this surplus? Surplus: $9 - 6 = 3$ kilos of rice; dollar amount of surplus: $3 \times 8 = 24$; surplus is responsibility of: government
- e) Suppose that after the imposition of the price floor, the demand in Shiva increases by 1.5 million kilos. Draw the new demand on Figure 3.18, and label it D₂. Now, how much in total will rice buyers be paying? Price: 8×7.5 ; quantity traded: 60 ; total spending: _____
- f) What will be the total amount of the new surplus? What will be the dollar amount of this surplus? Surplus: $1.5 \times 8 = 12$; dollar amount of surplus: \$ _____

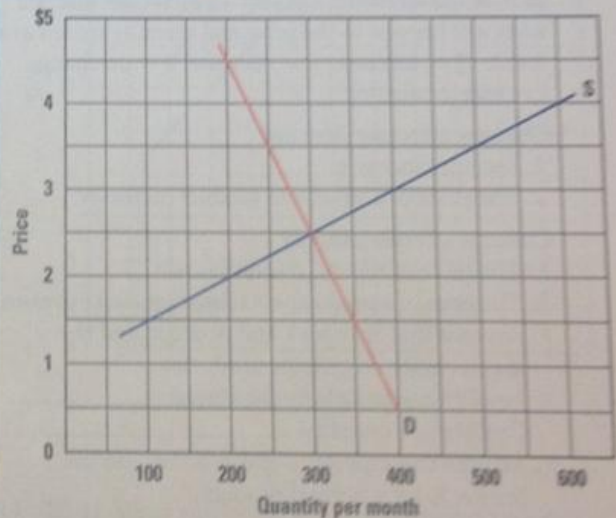
g) After the change in demand, what would happen if, as a result of a bad harvest, the supply now drops by three million kilos? Draw the new supply curve on Figure 3.18, and label it S₂. What will be the new price, the quantity traded, the total spending of buyers, the surplus and the dollar amount of the surplus?

Price: 9 ; quantity traded: 63 ;
total spending: _____ ;
surplus: 0 kilos;
dollar amount of surplus: _____

Basic (Problems 37A–45A)

37A. (LO 1) Figure 3.19 shows the market for mandarin oranges in Odin for the month of November (in thousands of kilos).

FIGURE 3.19



Suppose that in December the supply of mandarin oranges increases by 350 while the demand increases by 100.

- a) Draw and label the new curves D₂ and S₂.
- b) What will be the new equilibrium price and quantity? price: _____ ; quantity: _____
- 38A. (LO 1) Table 3.4 shows Osiris's market for olive oil (in thousands of litres per month). Suppose that olive oil increases in popularity, and Osiris's buyers are willing to buy an additional 10 units at each of the eight prices in Table 3.4. At the same time, as the result

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